Powertech comment C58 on the Cumulative Effects Analysis document.

Comment: In the first paragraph of Section 11.3.1 , the statement is made that "the year one facility construction does not appear to be distinguishable in the estimation of CO2 emissions related to electrical power consumption during the construction phase." Powertech notes that the GHG emissions from year 1 construction amount to about 0.2% of the cumulative, project GHG emissions. For clarity, however, most of the electricity consumed during the Dewey-Burdock construction phase will be for facilities construction, where utility power will be available. Wellfield construction will involve primarily mobile and earth-moving equipment to drill wells and install piping and power lines. Electricity use in the wellfields will correspond mainly to the operations phase. Powertech requests that EPA update this discussion in light of the evidence presented in this comment.

CEA Paragraph referenced in Comment:
The NRC SEIS notes that the construction phase in project year one consists of two main activities: facilities construction and wellfield construction. For the purposes of emissions inventory, Powertech is assuming that facilities construction will be completed at the end of project year one. The construction phase associated with the remaining life of the project is limited to wellfield construction. This distinction is reflected in Figure 25 and is taken into account for the estimation of CO_2 emissions from mobile sources, as shown in Table 31. However, the year one facility construction does not appear to be distinguishable in the estimation of CO_2 emissions related to electrical power consumption during the construction phase. The year 1 facility construction activities do not affect the estimates of CO_2 emissions for stationary sources and for yellowcake production.

Same referenced CEA paragraph again:

The NRC SEIS notes that the construction phase in project year one consists of two main activities: facilities construction and wellfield construction. For the purposes of emissions inventory, Powertech is assuming that facilities construction will be completed at the end of project year one. The construction phase associated with the remaining life of the project is limited to wellfield construction. This distinction is reflected in **Figure 25 (red box)** and is taken into account for the estimation of CO_2 emissions from mobile sources, as shown in Table 31. However, the year one facility construction does not appear to be distinguishable in the estimation of CO_2 emissions related to electrical power consumption during the construction phase. The year 1 facility construction activities do not affect the estimates of CO_2 emissions for stationary sources and for yellowcake production.

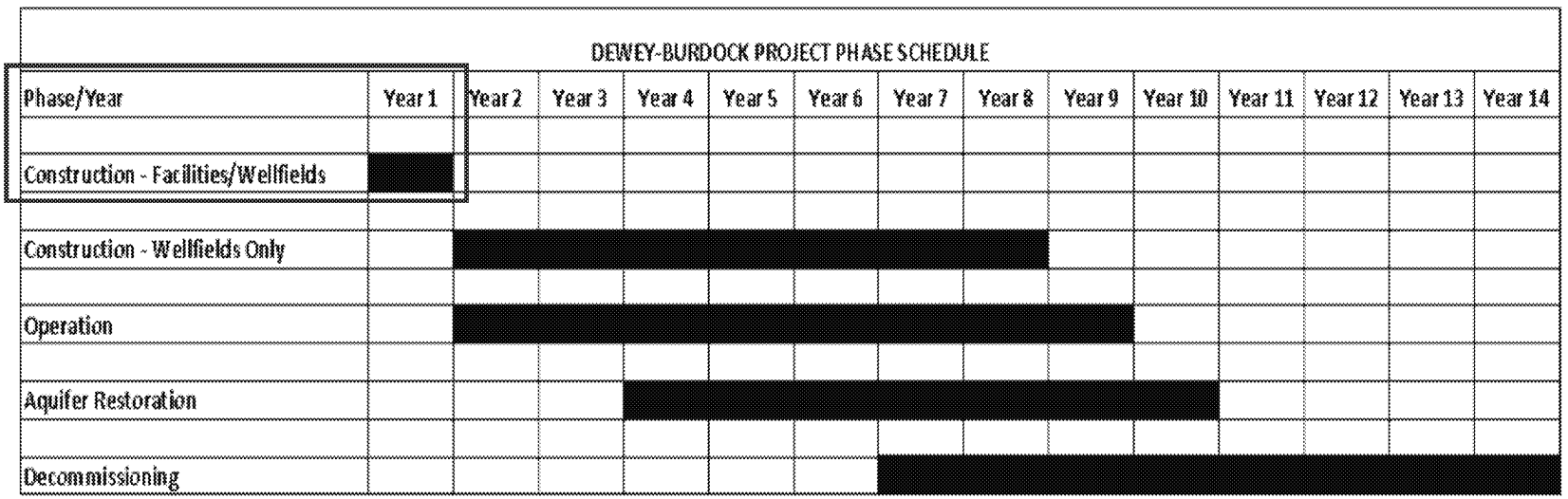

Figure 25. Projected Construction, Operation and Decommissioning Schedule at the Dewey-Burdock Project Site

I thought I would clarify what I was trying to say in that confusing sentence highlighted in yellow.

I realize now I should also have referenced Table 30 in the CEA:

Table 30. Annual Estimated CO_2 Emissions from Electrical Power Consumption

Phase	Metric tons/yr CO_2	Years per Phase	Total CO_2 (metric tons)	Total CO_2 (short tons)
Construction	542	9	4,878	5,373
Operation	22,097	8	176,776	194,862
Aquifer Restoration	6,685	7	46,795	51,583
Decommissioning	542	8	4,336	4,776
14 Years			232,785	256,596

My Questions: In Table 30, is the 542 metric tons of CO2 emissions from electrical power consumption during the construction phase all attributable to facilities construction? Is all facility construction accounted for in year 1?

I was confused because NRC's SEIS Table 2.1-6 (next slide) identified the 542 metric tons as an annual amount for construction phase. I guess that is true, but annual only for the first year? If 542 metric tons is from only facilities construction and during the first year, I will update this table in the CEA to reflect that info (not multiply 542 by 9) and include that info the response to comment C58. **How about decommissioning? Is the 542 metric tons an annual amount for 8 years of decommissioning activity? Or is all disassembling of facility structures accounted for in one year & I shouldn't multiply 542 by 8?**

CEA Table 29. Annual Carbon Dioxide Estimates in Metric Tons/Year * for the Proposed Action (SEIS Table 2.1-6)

Phase	Facility		Mobile Sources	Electrical Consumption	Total
	Stationary Sources†	Fugitive from Uranium Recovery Process			
Construction	1,439	0	3,990	542	5,970
Operation	1,439	440	1,490	22,097	25,466
Aquifer Restoration	1,439	0	110	6,685	8,234
Decommissioning	1,439	0	1,286	542	3,267
Peak Year‡	1,439	440	6,876	29,865	38,621§

Source: Modified from IML (2013).
*To convert metric tons to short tons, multiple by 1.10231.
†Except for project year one, stationary emission are assumed to be constant over the project lifespan. Therefore the peak year calculation would only need to include the stationary source emission value one time rather than for each phase.
‡Peak year accounts for when all four phases occur simultaneously and represents the highest amount of emissions the proposed action will generate in any one project year.
§This value is for the peak year total which only includes the stationary source emission value of 1,586 once (Note †). This value is not the total of the individual phase totals in the column because each phase totals includes the stationary source emission value.